Final Abstract Number: 53.023
Session: Epidemiology & Public Health
Date: Saturday, June 16, 2012
Time: 12:45-14:15
Room: Poster & Exhibition Area

Epidemiological status of cutaneous leishmaniasis in Behbahan County, Khuzestan Province, SW Iran

H. Kassiri[1,*], S. Shojaei[2], K. Kolahkaji[3]

[1] *Ahwaz Jundishapur University of Medical Sciences, School of Health, Ahwaz, Iran, Islamic Republic of*
[2] *Ahwaz Jundishapur University of Mediical Sciences, Ahwaz, Iran, Islamic Republic of*
[3] *Behbehan Health Services Centre, Behbehan, Iran, Islamic Republic of*

Background: Leishmaniasis is a zoonotic infection in which parasites of the genus Leishmania are transmitted from rodents and small mammals to *Phlebotomus species* sand fly vectors. In Iran at least 20000 leishmaniasis cases per year have been reported. Cutaneous leishmaniasis (CL) is a major health problem in some parts of Iran, which exists as zoonotic and anthroponotic forms in different foci of the country. In recent years new foci of zoonotic CL were found in Iran. This disease is endemic in many rural areas, including Khuzestan Province, southwestern Iran. The main vector for humans is *Phlebotomus papatasi*, Scopoli 1786 *(Diptera: Psychodidae). P. Papatasi* is the predominant sand fly. *Leishmania major* is a causative agent of ZCL. Rodents are the main reservoirs of this disease. This study was carried out to determine the epidemiology and the status of CL in Behbahan County.

Methods: This descriptive cross section study was done in Behbahan County from 2004-2008. We confirmed suspected cases by using stained smears. Data for this study were collected by means of a questionnaire. The data was analyzed by SPSS software.

Results: A total of 172 cases of CL were reported in Behbahan County in 2004 (n = 24), 2005 (n = 33), 2006 (n = 43), 2007 (n = 34) and 2008 (n = 38). Most of the cases (55.2%) were found in the males. In 55 cases (32%) the ulcer was located on hand and the remainder were on foot (31.4%), face (19.2%) and trunk (17.4%) respectively. Eighty four patients (48.8%) had only one ulcer. But 88 cases (51.2%) had more than one ulcer. The highest incidence was found among patients with two age group of 20-29 (27.3%) and 10-19 (26.2%). Most frequency was found in the rural areas (52.9%). The study also showed the rate of CL incidence during these 5 years had not been fixed and fluctuated from time to time (with the general rate of 0.18 per thousand). It was also evident that the highest rate of incidence of CL was in winter, spring, fall and summer, respectively.

Conclusion: With respect to the increased prevalence of CL in Behbahan, health care observers should pay further attention on preventing the disease spread.

http://dx.doi.org/10.1016/j.ijid.2012.05.423

Final Abstract Number: 53.024
Session: Epidemiology & Public Health
Date: Saturday, June 16, 2012
Time: 12:45-14:15
Room: Poster & Exhibition Area

Pandemic influenza A (H1N1) virus infections among villagers living in rural Thailand

B. Khuntirat[1,*], I.-K. Yoon[1], W. Krueger[2], M. Chittaganrnpitch[3], K. Supawat[3], P. Blair[4], S.D. Putnam[5], R.V. Gibbons[1], P. Sawanpanyalert[3], G.L. Heil[2], J.A. Friary[2], G.C. Gray[2]

[1] *Armed Forces Research Institute of Medical Sciences, Bangkok, Thailand*
[2] *College of Public Health and Health Professions, University of Florida, Gainsville, FL, USA*
[3] *Thai National Institute of Health, Nonthaburi, Thailand*
[4] *Naval Health Research Center, San Diego, CA, USA*
[5] *JMI Laboratories, North Liberty, IA, USA*

Background: The first confirmed case of pandemic influenza A (H1N1) virus (pH1N1) in Thailand was declared on 12 May 2009. A prospective cohort study among approximately 800 adult subjects undergoing active community-based surveillance for influenza-like illness (ILI) in Kamphaeng Phet, Thailand was ongoing at the time of pandemic onset. Using this existing cohort, we aimed to determine the incidence of symptomatic and subclinical pH1N1 infection in adults.

Methods: Cohort subjects underwent active community-based surveillance by weekly visits to their homes. Subjects with influenza-like illness were tested by real-time reverse transcription-polymerase chain reaction (RT-PCR) on respiratory samples. Hemagglutination inhibition (HI) assay for pH1N1 was carried out annually. In addition, household members of cohort subjects with confirmed influenza A were evaluated.

Results: The pH1N1 virus was first detected in ill cohort subject in August 2009. From 2009 to 2010, 71 cohort subjects developed HI seroconversion sera against pH1N1. However, only 10 cohort subjects (3 in 2009 and 7 in 2010) were found to have symptomatic pH1N1 infection by real-time RT-PCR (9 out of 10 had HI seroconversion in acute/60-day convalescent sera). Thirty-six household members (16 in 2009 and 20 in 2010; age range = 1-70 years) living with the pH1N1-positive cohort subject were evaluated. Six of these household members (age range = 3-47 years) developed ILI within 4 days of the corresponding cohort case and were confirmed to have pH1N1 infection by PCR and HI seroconversion in acute/60-day convalescent sera. Twelve household members without any ILI symptoms (age range = 1-70 years) developed pH1N1 seroconversion in acute/60-day convalescent sera; 7 members without symptoms (age range = 6-27 years) had a positive HI titer against pH1N1 from both acute and convalescent sera.

Conclusion: Subclinical or mild pH1N1 infections make up a majority (about 92%) of all pH1N1 infections in adults. Household contacts had a high infection rate (70%) but a majority (76%) of these was subclinical or mild. These findings demonstrate that subclinical or mild pH1N1 infection occurs frequently among human adults.

http://dx.doi.org/10.1016/j.ijid.2012.05.424